

# JPRS Report

# Proliferation Issues

## **PROLIFERATION ISSUES**

JPRS-TND-93-020

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28 June 1993

[This report contains foreign media information on issues related to worldwide proliferation and transfer activities in nuclear, chemical, and biological weapons, including delivery systems and the transfer of weapons-relevant technologies.]

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#### **SOUTH KOREA**

# Defense Ministry Says Nodong-1 Test in May Successful

SK2406091793 Seoul YONHAP in English 0851 GMT 24 Jun 93

[Text] Seoul, June 24 (YONHAP)—North Korea successfully conducted a test of four missiles from Taepo-tong in Hwadae-kun, North Hamkyong Province, in late May, the South Korean Defense Ministry said in a briefing on recent developments in North Korea on Thursday.

Two of the missiles, which the ministry said appeared to be Nodong No. 1, hit their targets in the East Sea 500km and 100km away from the launch pads, and the remaining two fell short of 100km.

As they were believed to have been developed to carry nuclear warheads, they posed a threat to neighboring countries, a senior official said.

North Korea had shown no significant movement since its first test launch of a Nodong-1 missile from the Musudan range in Hwadae-kun in late May 1990, but a study of recent developments in North Korea showed that the test launch in May appeared to have been successful, he said.

In 1976, North Korea bought two Soviet Scud-B missiles from Egypt and improved them into its own 300km range Scud-B and 500km Scud-C models with the help of Chinese technology. These missiles were successfully tested in April 1984 and May 1986, respectively.

The Soviet Union developed Scud missiles to deliver tactical nuclear warheads, the official said.

North Korea has shipped some 250 Scud-B and -C missiles to Middle Eastern countries, while starting to develop the 1,000km range Nodong-1 missile in 1988 when it deployed Scud-C missiles in Singye, North Hwanghae Province.

Touching on recent developments in the military situation, the official said: "North Korea wants to complete war preparedness by July 27, the 40th anniversary of the Korean war armistice, as it has set 1995 as the year of national reunification.

"Under the circumstances, North Korea has augmented its forward deployments of 240mm multiple-rocket launchers and 170mm self-propelled Howitzers, while reorganizing district commands into regular corps-level commands and increasing the fleets of warships, for both qualitative and quantitative improvement of its fighting forces.

"North Korea is still in a state of tension similar to the state of semi-war it declared last spring, when the 'Team Spirit' joint South Korea-U.S. military exercise was conducted in South Korea. Electric power use and vehicular traffic in the private sector are under strict control, though the largest-scale joint Navy-Air Force exercise and the largest-scale mobile exercise of army mechanized units since 1988 were conducted recently. This tells us that North Korea's military has no problem, unlike the private sector."

#### **ARGENTINA**

# Defense Minister Says Condor-2 'Will Not Be Fully Deactivated'

PY2306030093 Buenos Aires NOTICIAS ARGENTINAS in Spanish 2307 GMT 23 Jun 93

[Text] Buenos Aires, 22 Jun (NA)—Defense Minister Oscar Camilion today admitted that the missile project Condor-2 "will not be fully deactivated" and stated that the peaceful use aspects of the project will be exploited. Camilion said that the government "has nothing to conceal on the issue" and noted that the possibility of "recycling the Falda del Carmen plant," located in Cordoba Province, is being assessed.

In response to a question on the Radical Party's [UCR] criticism regarding U.S. "interference" on the issue, Camilion said "that any foreign mission that may provide ideas will be welcome in Argentina." The minister gave the Chamber of Deputies Defense Commission a long explanation on the subject. Most of the session was held behind closed doors.

However, it was leaked that Camilion agreed with "many of the UCR objections" and discouraged the dismanteling of the Falda del Carmen plant, where the Condor-2 missile vector was conceived and built. Camilion stated that the plant could continue producing engines for satellites and communication purposes coinciding with UCR Deputy Conrado Hugo Storani, who noted that "all the high technology such as that of the Condor-2 has dual use and that its use with certain purposes is subject to political decisions."

In Storani's opinion, the government's decision to dismantle the production of the missile vector "is prompted by pressure exerted by the United States through Ambassador Terence Todman," and added that "in this sense the government has acted in a submissive and obsequious manner."

Storani's comments were energically refuted by Justicialist Deputy Carlos Ruckauf, head of the Foreign Relations Commission, by asserting that "the government's foreign policy is clearly sovereign."

Ruckauf said: "The policy designed to join the First World entails giving up the proliferation of nuclear, missile, and chemical weapons."

Minister Camilion, in turn, said that the entire Condor-2 project was "risky" and commented that "missile proliferation is unacceptable."

However, he upheld the development of the vector for peaceful purposes and at the same time denied that military personnel at Falda del Carmen plant will be retired and that the civilian person will be dismissed.

At the end of the closed door portion of the lengthy session, Conrado Storani said that "it has become clear that the United States is exerting pressure to eliminate its economic and commercial competitors," and voiced his hope "that the technological development attained with the Condor-2 will be preserved."

Storani refrained from referring to the costs of the controversial project, which started in 1979 and gained strength under former President Raul Alfonsin, by stating that he did not have that information.

However, Storani revealed that the project was intensified by Argentina with the purchase of technology from the United States, Germany, Italy, and France, and added that "the United States now wants that technology destroyed."

Lastly, Camilion sustained that "the government has nothing to conceal" and noted that "the foreign missions that may propose alternatives for the use of the Falda del Carmen plant will be welcome." The defense minister also promised to discuss the reorganization of the Armed Forces with the defense commissions of the two houses.

#### BRAZIL

# Government To Make New Investments in Angra-2

PY2406180893 Rio de Janeiro O GLOBO in Portuguese 23 Jun 93 p 5

[Text] Brasilia—After five years of paralysis, the Angra-2 nuclear plant will receive new investments from the government. This report was released yesterday by Mines and Energy Minister Paulino Cicero during a public session called for by the Chamber of Deputies Environment Commission to discuss the resumption of the plant's construction activities. By the end of the year the government will begin an international call for bids for the installation of equipment. Cicero said the government intends to invest \$1.377 billion in Angra-2 by 1997, when it should begin operation at the commercial level.

The minister said the unfinished plant costs the country \$500 million yearly, \$100 million of which is spent yearly just to maintain the equipment and the technical team. But what is worse is the financial cost of Angra-2: \$400 million yearly.

"As you see, it is cheaper to conclude Angra-2 than leave it the way it is," Cicero argued.

#### Notice to Readers

[Editorial Report] An FBIS survey of media reporting on nuclear, missile, and space developments in Brazil is currently available to consumers of the Proliferation Issues Report. Entitled 'Brazil: Nuclear, Missile, Space Developments' this survey provides information beyond the translations published in this report. To order a copy of this article, call the Proliferation Issues Report editor on (703) 733-6468.

#### **BANGLADESH**

#### Cabinet To Extend Nuclear Fuel Pact With U.S.

BK2106134693 Dhaka Radio Bangladesh Network in Bengali 1230 GMT 21 Jun 93

[Text] The cabinet has decided to approve the Science and Technology Department's proposal to extend the 1981 cooperation agreement with the United States on peaceful use of nuclear fuel. The approval was given at a regular weekly cabinet meeting chaired by Prime Minister Begum Khaleda Zia at the president's house today. Under the agreement, the United States and Bangladesh will cooperate in peaceful uses of nuclear fuel and exchange information on nuclear fuel, equipment, and materials. The meeting was attended by ministers and state ministers in charge of various ministries and departments.

#### INDIA

# U.S. Stand Makes Fate of Tarapur Nuclear Plant Uncertain

BK1906142293 Delhi THE HINDUSTAN TIMES in English 11 Jun 93 p 9

[Text] NEW DELHI, June 10 (PTI)—The United States is not likely to allow India to reprocess the Tarapur spent fuel unless it agreed to sign the Nuclear Non-Proliferation Treaty (NPT), according to a highly placed embassy official here. He said that his Government is likely to react "very sharply" if India defied the U.S. and went ahead with reprocessing the spent fuel that is of American origin.

The American position spells doom for the Tarapur nuclear plant which has just received the last supply of enriched uranium fuel from France. The stock will enable operation of the plant till the end of 1994 or early 1995 but not beyond.

A spokesman of the Indian Atomic Energy Commission [AEC] said India was hoping to keep the plant running for another 15 years using MOX (mixed oxide) fuel prepared from plutonium obtained by reprocessing the spent fuel.

The U.S. official said that India had no right to reprocess without permission from his Government. "Such permission is not possible under the U.S. Nuclear Non-Proliferation Act of 1978," he said.

According to the official, the reprocessing issue is likely to snowball into a "major diplomatic problem" unless it is resolved soon through bilateral talks.

The twin 210-mw [megawatt] reactors in operation since 1969 were built by the International General Electronic Company of the United States under an Inter-Governmental agreement signed in 1963. The agreement expires on Oct. 25 this year.

The AEC spokesman said the expiry of the agreement "automatically lifts Tarapur from international safeguards, and gives India the freedom to reprocess the spent fuel that is Indian property under the terms of the 1963 agreement."

The U.S. official, however, said that AEC has no legal ground for reprocessing even after the expiry of the agreement because the agreement had specified that reprocessing would be allowed only with U.S. consent. "Such consent was not given and is not likely to be given under the existing U.S. domestic law," he said.

Asked to comment on U.S. objection to reprocessing, the AEC spokesman said: "The 1963 agreement itself provided for reprocessing upon 'joint determination' of the parties. Joint determination does not mean prior approval of the U.S. but it only means that the U.S. must be convinced that the reprocessing plant can be adequately safeguarded."

According to Indian officials, the U.S. accepted the design of the reprocessing plant as early as in 1968 but failed to formally complete the 'joint determination' exercise, "thereby making the important clause of the 1963 agreement infructuous."

The officials said the reprocessing plant built at considerable cost has not been used for the purpose for which it was built. It is currently used to extract plutonium from fuel discharged by the power plant at Kota.

The AEC spokesman said the MOX fuel is the option India has to keep the Tarapur plant running because the enriched uranium produced indigenously in Mysore is considered not sufficient.

Tarapur is the only nuclear plant in India requiring enriched uranium. The U.S. was regularly supplying fuel to Tarapur until the Indian nuclear test in 1974. After that, supplies became erratic and stopped altogether in 1981.

France, which became the supplier from 1983, informed the Indian Government six months ago that it will not provide fuel after 1993 unless India opened all its nuclear facilities to international inspection. With objections now raised over reprocessing, the fate of India's oldest nuclear power station has become uncertain.

# 'Major Breakthrough' Expected in Nonproliferation Talks With U.S.

BK2306033893 Delhi INDIAN EXPRESS in English 16 Jun 93 p 6

[By Pravin Sawhney]

[Text] New Delhi—The third round of Indo-US talks, on regional security and non-proliferation slated for June-end in Delhi, will witness for the first time the newfound US defence department (Pentagon) in a role, hitherto, given exclusively to diplomacy.

This implies an active US role in military intelligence gathering on fissile material, on-site inspections, export control monitoring and special operations on proliferation, which is their major concern in relations with India and Pakistan. However, the Indian embassy is confident of a major breakthrough in talks.

The three issues expected high on the agenda, in the present context, assume a military connotation now

implicit in diplomatic parleys. In line with the US belief that a phased approach be initiated for the eventual elimination of weapons of mass destruction (WMD) from South Asia, the US suggestions include that India unilaterally or regionally cut off fissile material production. Besides, a regional agreement not to conduct nuclear detonations be reached and both India and Pakistan place new and existing nuclear facilities under safeguards [sentence as published].

A hint that definitive results are expected in the forthcoming bilateral talks was given by the Indian Ambassador to US, S.S.Ray, in a conversation with INDIAN EXPRESS. "While India is firmly opposed to the NPT [Nonproliferation Treaty] in its existing form, in accordance with certain clauses given in the Rajiv Gandhi disarmament plan, both countries are certain to reach some understanding on the proliferation issue," an effusively confident ambassador observed.

Under the Clinton Administration, the Pentagon will assist the state department non-proliferation efforts with what is being called a "counter-proliferation" role. This has been done through a newly created post of assistant secretary for nuclear security and counter proliferation. And the importance that the administration attaches to it, is evident from the fact that Ashton Carter, who heads it, is amongst the four out of 43 Pentagon political appointees cleared by the Congress

"Counter-proliferation suggests an expanding concept in post Cold War period, which entails a shift from the diplomatic to military importance to include conceivable military measures to deal with proliferation threats," observed Pentagon sources.

These will comprise of new and innovative military approaches to tackle proliferation of WMD through policy, weapons acquisitions, intelligence, analytical capabilities and export controls, according to Defence Secretary Les Aspin in a recent statement to the House Armed Services Committee.

Consequent to the July 1992 unilateral US decision not to produce fissile material for weapon purposes, the administration has repeatedly urged both India and Pakistan to consider taking similar steps on a unilateral or regional basis.

US officials maintain that the two rounds of bilateral talks with India held in June and November 1992 under the Bush Administration had been useful.

#### Paper Supports Country's Right To Reprocess Nuclear Fuel

BK2306051893 Delhi INDIAN EXPRESS in English 17 Jun 93 p 8

[Editorial: "Another Indo-US Row"]

[Text] Judging by statements made to a news agency by spokesmen for the Indian Atomic Energy Commission (AEC) and the United States Embassy in Delhi, another row is brewing between India and the United States over the Tarapur nuclear power facility. In dispute is India's right to reprocess spent nuclear fuel from the Tarapur power plant after October 1993 when the Tarapur agreement ends. France, which became a stopgap supplier of enriched uranium to Tarapur when the US backed out of its 11 contractual obligations in 1983, has halted supplies because India refuses to sign the discriminatory Nuclear Non-Proliferation Treaty [NPT]. One of the AEC's options for keeping the plant working for the next decade or more is to use a mixed oxide fuel, developed in India and produced by reprocessing spent fuel from Tarapur to extract plutonium from it. This is where the trouble starts.

According to the US Embassy official, his government would react "very sharply" if India reprocessed fuel of American origin without permission which cannot be given under US domestic law passed in 1978. Since India would be allowed to reprocess only if it signed the NPT, according to the official, this is as good as saying that Tarapur should be shut down, its potential thrown away and India incur the horrendous cost of de-commissioning. This is clearly unacceptable and the AEC's view is sharply at odds with the American one. It believes firstly, and correctly on the basis of more than one article in the Tarapur agreement, that India retains title to the spent fuel in the plant. It also says that it is intended to put all the plutonium recovered from reprocessing back into the power plant.

The crux of the matter is safeguards, specifically whether material supplied by America is under fullscope safeguards i.e. in perpetuity, or only during the life of the agreement which ends in 1993. India's right to reprocess spent fuel is expressly provided for in Article 2(E) of the Tarapur Cooperation Agreement "upon a joint determination of the parties that provisions of Article 6 (that material is used solely for peaceful purposes) may be effectively applied". India's peaceful intent has been made clear. Although provision was made for a review of articles of the agreement from time to time in line with changes in American domestic legislation, Article 2(E) was never changed. Therefore the Americans cannot under their contractual obligations refuse to make a joint determination that safeguards are in place when the fuel is reprocessed. At the same time, the AEC claim that safeguards end with the end of the agreement, is an unnecessarily confrontationist position to take in light of India's declared peaceful intent. The AEC's case is also likely to be contested by the IAEA [Indian Atomic Energy Authority] under the Tarapur tripartite agreement. Arbitration is the only way out if the two sides cannot sit down together, free of extraneous pressures, and arrive at a practical solution.

#### **ISRAEL**

#### Swiss Transfer of Data on Nuclear Arms Confirmed

TA2506113093 Jerusalem Qol Yisra'el in Hebrew 1100 GMT 25 Jun 93

[Text] Likud leader Binyamin Netanyahu says that Israel has known for a long time that Switzerland has been transferring sensitive and classified data pertaining to the manufacture of nuclear bombs to countries in the Middle East. Interviewed by our correspondent David Essing, Knesset Member Netanyahu said that during the Likud government's tenure, he himself participated in contacts with a senior Swiss Government representative in a bid to terminate such cooperation with Iraq prior to the Gulf war.

#### **PAKISTAN**

#### **Envoy Reaffirms Stand on Nuclear Issue**

BK2506030493 Islamabad Radio Pakistan Network in Urdu 0200 GMT 25 Jun 93

[Text] Pakistan is determined to work not only for the cause of nuclear nonproliferation, but also for conventional arms reduction in South Asia. Syedullah Khan Dehlvi, Pakistani ambassador to France, addressed a group of French intellectuals in Paris and said Pakistan neither possesses nor has the intention to acquire nuclear arms. Its nuclear energy programs are entirely peaceful. He highlighted a number of proposals made by Pakistan to declare South Asia a nuclear weapons free zone. He said in spite of certain reservations, Pakistan will be willing to sign NPT [nuclear nonproliferation treaty] simultaneously with India. The ambassador highlighted the Pakistan prime minister's proposal for a five-nation conference, which has been supported by all countries concerned except India. He said a regional approach to nonproliferation is gradually gaining ground in international circles.

#### General Beg on Nuclear Tension With India

BK2306120193 Islamabad THE NATION in English 22 Jun 93 p 7

[Article by General Mirza Aslam Beg, former chief of the Army Staff: "Pakistan's Nuclear Programme: A National Security Perspective - III"—date not given]

[Text] India's inventory of nuclear facilities makes an impressive reading. Its nuclear infrastructure comprises the largest unsafeguard group of nuclear facilities outside the five nuclear weapon countries.

At the end of 1990, India had an inventory of over 2 tons of plutonium in its safeguarded nuclear power plants. The unsafeguarded plutonium inventory was about 1200 kg, out of which weapon-grade unsafeguarded plutonium was about 600 kg. In addition India has built an ultracentrifuge enrichment facility consisting of several thousand centrifuges near Bangalore. From the purely technical point of view, it appears that besides having stockpiled enough weapon-grade plutonium for 60 devices, India already possesses the capability to produce at least 20 more devices per year. It is thus possible that by the mid-1990's India could have nuclear material for manufacturing 200-300 nuclear weapons.

Alongside acquisition of necessary know-how, facilities and materials for the construction of nuclear devices, India is fast proceeding with the development of a viable delivery system. This consists of several hundred aircraft

with a range of 300-1000 km each capable of carrying nuclear weapons. India has a very aggressive programme for the development of long-range missiles. It has already tested the intermediate range ballistic missile Agni with a range of 2500 km. Its range can be doubled and accuracy improved, in addition. India is also known to have a strong interest in building its own nuclear submarines. It obtained on loan one nuclear submarine from Moscow for training purposes which has helped it to acquire technical know-how for developing the design of its own nuclear submarines.

India has all along maintained that the NPT is discriminatory and that it will not sign the Treaty even if Pakistan did so. It says that the NPT misdefines proliferation by confining it to horizontal proliferation only and does not take into account the security threat perception of developing countries. New Delhi also says that the Treaty creates two sets of values and is rooted in the erroneous assumption that the whites are more responsible in handling nuclear technology than the coloured. It says that the Treaty aims at denying technology to the developing countries behind the moralistic facade of non-prolification of nuclear weapons and [words indistinct] to perpetuate the political and economic domination of the advanced industrial nations.

Rejecting the regional approach, New Delhi says that proliferation is a global problem and must be tackled as such. It also mists [as received] that no non-proliferation regime will be acceptable to it which does not take into account the China factor and India's threat perception from it.

India's initial response to the 5-nation nuclear moot proposed by Pakistan was a firm "No", but now it says it is willing to discuss the issue bilaterally with the US and Pakistan within the framework of India's overall nuclear policy. This way, India seeks to counter increasing international pressure on it to respond to nuclear non-proliferation proposals. India hopes that once a vast, irreversible nuclear infrastructure and delivery system is in place, it will further improve its position on the international chessboard of power. It seeks entry into the nuclear club of [words indistinct] and a permanent seat on the Security Council.

It thinks that the reality of its nuclear explosion of 1974, a strong nuclear infrastructure, credible delivery system, strategic location and vast size will be difficult to ignore in any future re-ordering of the UN system. It therefore seeks to postpone any negotiation with a view to further strengthening the reality of its capability and thereby its bargaining position.

Robert Gates' new stance as brought out by Seymour Hersh is a new nuance of propaganda against Pakistan. It is being depicted as a "trigger happy" and an irresponsible nuclear power. It projects Pakistan as an irresponsible state which needs to be told not to use nuclear "weapons". Moreover it is to be shown that it cannot possibly win a nuclear war against India. All this partisan approach goes to prove that India has no desire to use nuclear weapons,

unless Pakistan provoked it to relatiate in kind. A close look at the American policy towards Pakistan indicates that America has been unduly hard on Pakistan hoping that it would relent and roll back its nuclear programme. All military and economic aid has been suspended to Islamabad since 1990, under the Pressler Amendment. But this policy has not worked. In fact, Washington may have realised by now that its own non-proliferation goals might have been defeated in the process. This lack of symmetry in the treatment of Pakistan and India has been looked upon as brutally unfair to Pakistan.

There is a growing realisation by the international community that there should be strict controls over all types of weapons of mass destruction, including nuclear weapons. Thus the end of the Cold War has improved the prospects of meaningful disarmament. The signing of the landmark START-II Treaty early this year is a significant step towards some reduction of nuclear arsenals. As the prestige and aura associated with [words indistinct] fading and it is largely believed that nuclear weapons are unusable, nuclear disarmament has moved up on the international agenda of the sole surving superpower, i.e., the US.

Our proposal that both India and Pakistan sign the NPT and that South Asia be declared a nuclear-weapon free zone has not worked because the concept of a nuclear weapon-free zone does not provide for the denuclearisation of nations which have already gone nuclear. Nor have any foolproof verification measures been devised so far which could divest a country of weapon-grade fissile material or weapons which it is known to possess or has produced. The same argument applies if both Pakistan and India were to enter the NPT fold as non-nuclear weapon states.

The real issue is how India and Pakistan, both possessing advanced nuclear capability, can continue to act as non-nuclear weapon states. That is the issue which must be addressed rather than chasing the elusive goal of nuclear weapon-free zone or NPT as has been proposed by Pakistan for the past two decades.

That is perhaps why Washington is now not pressing New Delhi to sign the NPT. Instead, it is exerting pressure on both India and Pakistan to promote 'nuclear restraint'. [Words indistinct] the nuclear capabilities of the two countries at the lowest possible levels—the present ones if that can be achieved. It is widely suggested in Washington that efforts be made to cut off fissile materials production under safeguards.

The recent report prepared by the Carnegie Study Group of US-Indian Relations in a Changing International Environment included such well-known India friends as Stephen Solarz and Peter Galbraith as well as former Amembassor to Islamabad Oakley and Richard Hass, the senior White House official under President Bush dealing with the South Asian region. The Study Group report says: "Instead of pursuing the unattainable goal of seeking to induce India to give up its nuclear option, the US should shift from a focus on non-proliferation in South Asia to a policy designed to maintain nuclear restraint. Such a

policy would seek to freeze the stockpile of fissile material, the development of military related nuclear capabilities and the development, production and deployment of nuclear weapons and ballistic missiles by both India and Pakistan. The most effective way to pursue this perspective would be to draw India and Pakistan into worldwide agreements barring further nuclear testing and production of fissile materials by any state.

"Thus efforts should be made for the capping of nuclear programmes of the two countries with some kind of verifiable standoffs short of a deployed nuclear capability, instead of demanding a unilateral rollback or signing of NPT"

Both India and Pakistan must learn the lessons of the nuclear age. It is myth that nuclear secrecy enhances security. Perhaps survival in the nuclear age depends upon transparency in the nuclear field. This is because too much secrecy leads to suspicion which can in turn lead to unpredictable behaviour based on fear and mistrust. Both Pakistan and India have moved in the right direction by signing an agreement not to attack each other's nuclear installations. But much more needs to be done to defuse nuclear tension, for instance, allowing a peep into each other's nuclear secrets. Immediately, nuclear hotlines should be established to exchange nuclear information.

Given the state of tension and mutual mistrust and suspicion between India and Pakistan with issues like Kashmir, the Babri Masjid demolition, the allegation of sponsoring terrorism against Pakistan, it is dangerously tempting for each to launch an attack before being attacked which could escalate to a nuclear level. Such a possibility demands the setting up of elaborate command control and communication structures as was done by the US and ex-USSR during the Cold War days. This is more necessary in case of India and Pakistan where there can be a real danger of nuclear accident and unauthorised use of nuclear weapons due to the absence of a failsafe system etc. It took both the US and ex-USSR several years and massive investments to guard against such real dangers and build an effective command, control and communication system. But Pakistan and India may neither have the resources nor the capability to develop such a system for ensuring nuclear safeguards and security. It therefore makes a great deal of sense if the United States and other nuclear powers share with us the know-how for storage of fissile nuclear materials, preventing their falling into unauthorised hands, and communication systems to avoid an accidental nuclear war.

There is a general consensus that a nuclear policy if applied symmetrically to both countries would be accepted by the domestic public, which is increasingly anxious over a nuclear arms race in South Asia. Securing a regional standstill rather than a rollback would be the first, eminently double part of a new non-proliferation package. By first levelling the nuclear playing field, the stage would be set to effectively pursue the goal of non-proliferation.

This new nuclear bargain must envisage solemn assurance by both countries to freeze their stockpiling of weaponsrelated fissile material as well as to freeze activity in all areas where nuclear capability and delivery systems are being developed: missile, targeting and rocket booster programmes. Implementation of the plan of such a freeze could be a bilaterial agreement banning nuclear testing. This should be followed by a gradual approach towards a comprehensive system of confidence building and security-building measures. In sum, nuclear collision can be averted in South Asia if the element of retraint is enforced now. A freeze would put both countries on the path of nuclear [words indistinct] interests in either country. Hopefully, it would be acceptable to both countries. It will also offer crucial breathing time to design a more comprehensive non-proliferation regime.

#### RUSSIA

# Oboroneksport Signs Deal for Sale of MIG-29's To Hungary

LD2406224493 Moscow Russian Television Network in Russian 1900 GMT 24 Jun 93

[Video report by correspondent A. Vozhzhov—identified by caption; from the "Vesti" newscast]

[Text] [Vozhzhov] Many state commercial structures wish to sell combat equipment and weaponry but not all of them manage to produce profit for the state. The Russian state foreign trade association Oboroneksport has concluded a contract with the Hungarian republic for the sale of 28 MIG-29 fighter aircraft. Thanks to this act alone Russia has redeemed half of its Hungarian debt. [Video footage marked Voyen TV shows three fighter aircraft taking off together; fighter aircraft in flight; mobile rocket complex launching missile; another mobile launcher]

[S.Karaoglanov, chairman of the Oboroneksport Association—identified by caption] By supplying the MIG-29 we are opening up a flow of hard currency to the country—to our treasury. The supply of our military property is going toward redeeming Russia's debts to Hungary now amounting to more than \$800 million. That is to say, we are thereby tackling a problem affecting all our country.

[T. Sandor, deputy state secretary at Hungary's Defense Ministry—identified by caption] I am convinced that the decision we have adopted is of great use to the peoples of both countries.

[Vozhzhov] The military exhibitions at Le Bourget, Abu Dhabi, and Malaysia have not been in vain for Russia. Very shortly contracts will be concluded by Oboroneksport for the sale of technical equipment to the overall value of more than \$1.5 billion. [Video shows tank, rocket launcher, and multiple rocket launcher on display]

# Kozyrev on Indian Space Rocket Engines Deal, U.S. Reaction

LD2306161593 Moscow ITAR-TASS in English 1540 GMT 23 Jun 93

#### [By ITAR-TASS correspondent]

[Text] Moscow June 23 TASS—Russia and the United States are obliged to reach an acceptable solution to the dispute over Russian shipments of cryogenic rocket engines to India, according to Foreign Minister Andrey Kozyrev who said the problem is of a technical character.

Russian experts view the shipments differently than US colleagues who believe the deal to be a violation of the non-proliferation regime for missile technologies, Kozyrev told heads of Russian mass media on Wednesday.

He stressed that Russia is even more interested in observing the regime, as well as nuclear non-proliferation than the United States as all countries which are potential producers of the weapons are situated around Russia and the CIS states.

"In this case it is a technical dispute: Whether the deal is within or outside the limits of existing agreements", Kozyrev said.

Space cooperation with the United States is a "priority Russian interest" and development of relations in the sphere can serve as an example of political partnership, the minister said, adding that intensive consultations are being held with the United States on the Indian space deal at present.

The search for a solution is going on "in a benevolent way", he stressed.

#### Supreme Soviet Calls for Test Moratorium

PM2506085593 Moscow ROSSIYSKAYA GAZETA in Russian 25 Jun 93 First Edition p 1

[Statement No. 5212-1 of Russian Federation Supreme Soviet Soviet of the Republic "On Moratorium on Nuclear Tests"]

[Text] In October 1992 with the accession of France and the United States to the moratorium on nuclear tests announced by Russia a real prospect was opened up for the conclusion of a treaty on a total ban on nuclear tests which are used as a means of improving weapons of mass destruction, cause considerable damage to the health of the world's population and to the environment, and divert large material and financial assets.

But despite the numerous appeals from the public and the Russian people's deputies despite the intention of the Russian and U.S. presidents, announced in Vancouver in April 1993, to begin talks in the very near future on this problem of vital importance to mankind, they have still not begun.

It is obvious that certain forces are seeking to thwart the agreements which have been reached and to launch a new stage of nuclear tests.

This a dangerous threat to the world, the threat of the destruction of the nuclear weapons nonproliferation treaty, which expires in 1995.

Under these conditions we again appeal to the parliaments of the nuclear states—the United States, Britain, France, and China—asking them to hold a working meeting of parliamentarians to elaborate a program of actions aimed at preventing another spiral of the nuclear arms race.

We support Russian Federation President B.N. Yeltsin's position regarding Russia's readiness to extend the moratorium beyond 1 July 1993 if the United States does not resume its tests.

We have the opportunity of halting the nuclear madness. It is the duty of the parliaments and governments of the nuclear states not to let slip this historic chance.

[signed] The Russian Federation Supreme Soviet Soviet of the Republic, Moscow, House of Soviets of Russia, 17 June 1993.

#### Expe.t Denies Missile Telemetry Information Leak

PM2206135793 Moscow KRASNAYA ZVEZDA in Russian 22 Jun 93 p 3

[Article by Gennadiy Khromov, Russian Federation Defense Industry Committee disarmament expert: "Provisions of Treaty Are Being Implemented"]

[Text] Of late articles have appeared in certain publications whose authors claim that the Russian Federation has come out with some kind of "new initiatives" on telemetric data transmitted from strategic missiles during test launches. Thus, it is claimed, an additional source of leaks of important secret information is opened up, which could do considerable damage to the country's defense capability.

I will not venture to judge what motivated the writers of these articles. Perhaps they were after another scoop, or perhaps incompetence is that commonplace in our country. But it is all the more important to find out how things actually stand.

Within the framework of their pledges under the Strategic Offensive Arms Reduction and Limitation Treaty (the START Treaty) signed 31 July 1991 the Soviet Union and the United States renounced the coding and jamming of telemetric data during launches of strategic ballistic missiles. The sides acted on the obvious logic that with the easing of international tension and the move to real arms control the preservation of coding cannot be seen as anything but an anachronism. Moreover, when the treaty was signed it was agreed that even if it did not come into force within the year (although no one then could have imagined that the USSR would break up and that Ukraine would be to blame for delaying ratification of this document) such an obvious provision as the noncoding and nonjamming of telemetry should nonetheless be observed.

A year on the parties to the treaty (now the United States, Belarus, Kazakhstan, Russia, and Ukraine) have acknowledged the need to comply with its spirit and implement the main provisions of the treaty and have decided to continue the accepted practice of transmitting telemetry without coding and jamming. A ruling on this matter was issued during the fall of 1992 in the form of corresponding statements on behalf of the governments of all the above five states.

So, what "new Russian Federation initiative" can there be? After all, the accords that have been reached are not unilateral. They apply equally to Russia, the United States, and the other parties to the treaty.

One must also remember the following. The START Treaty envisages that once it has come into force telemetry should be used as an additional means of monitoring [kontrol] its key provisions such as, for instance, the number of warheads on a particular type of missile. In this connection it was agreed that once the treaty has come into force the sides will exchange magnetic tapes bearing information about each launch and certain initial firing data making it possible to obtain information from these tapes for verification. And nothing more! Then it is up to each country's specialists how they protect its interests. At any rate it may be asserted that

access to the missiles' most important specifications and performance characteristics—such as accuracy, combat readiness, degree of protection, the operating parameters of the automated mechanism [parametry raboty avtomatiki], etc—can be safely barred to "prying eyes."

What is more, in order to restrict access to the most sensitive information (information that has no bearing on the parameters monitored) the treaty allows information transmitted from the warheads to be coded during 11 launches a year. Not to mention the fact that we and the United States use nonstandard delivery vehicles to test [otrabotka] the warheads for which no restrictions at all are envisaged on the means of transmitting the telemetry. So the claims that via this telemetry warhead data are transmitted enabling the United States or anyone else to "make flexible adjustments to their ABM systems" is, to put it mildly, totally unfounded.

Now, until the START Treaty comes into force, magnetic tapes containing recorded telemetry and the corresponding initial firing data are not being handed over although the specific procedure for this handover has been coordinated within the framework of the activity of the special committee whose task is to facilitate the implementation of the provisions of the START Treaty.

# Academy of Sciences Official on Implementing CW Treaty

PM2206092993 Moscow ROSSIYSKIYE VESTI in Russian 19 Jun 93 p 2

[Interview with Academician Anatoliy Kuntsevich of the Russian Academy of Sciences, chairman of the Committee for Convention Problems of Chemical and Biological Weapons under the Russian Federation President, by Sergey Ovsiyenko under the "Security" rubric; place, date not given: "Is There an Antidote?"]

[Text] [Ovsiyenko] Anatoliy Demyanovich! Under the existing provisions of the international Convention on the Prohibition of Chemical Weapons, your committee is called upon to monitor the observance of its requirements in Russia. But as far as I know, there are no legal principles regulating your activity....

[Kuntsevich] You are correct in noting that there are none at present. We are working on this, our aim being to prepare a package of laws. This package of legal acts will determine the extent of liability, including administrative and criminal liability, of officials who have violated Russia's convention commitments and will create conditions making it impossible to deviate even a single step from the agreements that have been signed.

[Ovsiyenko] Anatoliy Demyanovich, to what extent does the Paris Convention ensure Russia's national security?

[Kuntsevich] It does so via the international national committees and inspections. For example, if we suspect that a particular country is committing a violation and producing toxins, even if it is in insignificant quantities, we have the right to send an inspection team there. The convention

guarantees us this—you cannot refuse to be monitored. And if this information is confirmed, international sanctions come into effect.

[Ovsiyenko] So what is the state of affairs concerning the elimination of chemical weapons in Russia itself?

[Kuntsevich] These same convention provisions, which have been recognized by Russia, oblige the committee to assume the role of national coordinator of work to destroy toxins and to elaborate a unified state policy in this sphere.

A large volume of work must be carried out to uncover all burials of toxins carried out since 1 January 1946 and before then.

Archive information which the committee now has at its disposal indicates that there are no secret burial sites in Russia, unlike in the FRG, where, according to articles in the German press, there are several dozen. On the territory of the Shikhany test range in Saratov Oblast, we have a burial site of old irritant toxins. Work is being done to bring it into line with environmental norms.

We are monitoring the Baltic Sea. After World War II a significant quantity of chemical weapons were sunk there and in the North Sea within the framework of an international agreement between Britain, the USSR, the United States, and France.

[Ovsiyenko] Huge reserves of toxins have accumulated in Russia. How can these now be destroyed in order to fulfill the requirements of the convention?

[Kuntsevich] The destruction of chemical weapons is an important and in many respects difficult problem for Russia. Russia has 40,000 tonnes of toxins, of which 10,000 tonnes are obsolete—mustard gas and lewisite—and 32,000 tonnes are organophosphorus toxins. Russia and the United States occupy an equal place on the basis of this indicator.

There are also difficulties connected with the plants for the production of chemical weapons, which should be physically destroyed under the convention. But Russia cannot take such a step at present because of the economic difficulties it is experiencing. This would cost the state budget 50 billion rubles [R].

We should not destroy these enterprises, but convert them, setting up the production of detergents, for example, or other domestic chemical output. The committee is in favor of keeping general-purpose equipment and only dismantling the last link in the technological process of the production of toxins and ammunition.

This approach is being greeted with understanding among the parties to the convention. Having examined the Volgograd plant where chemical weapons used to be manufactured, the Americans came to the conclusion that this approach does not contravene the convention.

[Ovsiyenko] And how much will the national program for the elimination of chemical weapons cost?

[Kuntsevich] The 10-year program will demand R600 billion. As you can see, this is a huge sum and makes up over half of all expenditure on all forms of weapons.

But even this is unfortunately not all: Under the convention, Russia must pay in hard currency for every visit to us by an international inspection team. In Iraq, for example, one day's work by a UN inspector was estimated at \$2,000-2,500.

Where can we get this hard currency, which is already in short supply in Russia? We are looking for and proposing solutions, and we are guaranteeing the visiting monitoring inspection team full board and lodging for rubles, so that our experts are greeted in the same way in the United States, for example, with which we have bilateral agreements.

[Ovsiyenko] But where can we get the money to implement the national program for the destruction of chemical weapons?

[Kuntsevich] There are several options which we went through at the Moscow conference. One of them is to create a nongovernmental "Chemical Disarmament" fund which would include an investment bank and a major holding company which would have specific privileges and state guarantees in Russia. I am sure that this would attract Western firms and their investments.

Commercial business projects in industry, agriculture, and construction also have the right to exist.... Part of the profit from them would go into the implementation of our program. If this is successful, it would be possible to cover around 50 percent of budget expenditure.

I would stress once again that we need state support for this.

Russian entrepreneurs could invest money in the recycling of toxins. We are now elaborating the following project: On the basis of the recycling of lewisite, we can obtain output which is in demand on the world market, and channel income from this into the local budget.

[Ovsiyenko] The national program envisages the creation of installations for the destruction of chemical weapons. Where exactly, and how many of them?

[Kuntsevich] Their structure has not been determined yet, and the reason is our financial difficulties. There is a plan for the first phase, which is aimed at destroying 43 percent of chemical weapons stocks by the year 2004. These volumes and deadlines, it must be noted, fit in with the convention provisions

It was intended that only three installations would be created: the settlement of Gornyy in Saratov Oblast, the city of Kambarka in Udmurtia, and Novocheboksarsk.

## Moscow Institute Defended Against CW Charge

PM2106103993 Moscow KRASNAYA ZVEZDA in Russian 16 Jun 93 p 2

[Mikhail Rebrov report: "Who's Covering Up? An Attempt To Get to the Bottom of the Complex Situation Surrounding a Once Top-Secret Scientific Research Institute"]

[Text] Attacks on the State Scientific Research Institute of Organic Chemistry and Technology began seemingly overnight and from all directions. The chief grounds boiled down to the claim that the once top-secret "mailbox" [defense plant] is continuing to produce chemical weapons and is literally poisoning Muscovites.

Rumors that tonnes of mustard gas are secretly buried on the territory of the institute (which is situated on Shosse Entuziastov in Moscow) spread like wildfire. The story was reinforced by the date of the aforementioned deed—mid-October 1941 was mentioned—and sounded highly plausible. The Germans were outside the walls of Moscow, many scientific research institutes were hastily evacuated, and what they couldn't take with them.... In short, the mustard gas might have been "hidden."

An inquiry began. Checking out the rumors after almost half a century turned out to be a difficult task. Documents had not been preserved, and witnesses could not be found. Twenty-six workers, engineers, and scientists who remember that troubled and alarming time were interviewed. They ai! declared: "Nothing of the sort took place." But there was no hard evidence....

Moreover, one of the "witnesses" sowed doubts by saying "seemingly something was done." He even indicated the place where the dangerous toxin could be stored. The area was narrowed down, and a thorough analysis of soil samples from various depths was carried out—nothing was found. Then they recalled an incident from those distant wartime years. A worker had sat down on a drum, then his trousers suddenly caught fire. There was confusion and panic.... The poor guy was saved, although he lost his trousers. However, that drum contained not mustard gas but the incendiary mixture used to fill bottles during the war years.

Then stories about shells appeared. Intriguing details emerged about a suspicious "device" found in the institute's yard. Combat engineers were summoned, and people were evacuated. And it turned out that the shell casing was topped with a regular valve: During the war it had been used instead of a gas cylinder.

But then yet another "criminal" business surfaced. Referring to the opinion of highly authoritative staffers at the institute, rumors spread that "chromatographic analysis of the water supply in building No 7, which is fed from an artesian well, revealed the presence of a whole range of compounds similar in structure to mustard gas."

You can imagine the state of people working in "No 7." Once again there was an inquiry. And once again confusion: There is no artesian well at the institute. And of the two wells which used to operate, one was closed in 1971, and the other in 1985. All water consumption comes from the city network

The reader has every right to ask: Legends are all very well, but what about the real issue? That is, chemical weapons? And he will be hitting the nail right on the head.

"We were indeed involved with creating them for many years," Institute Director Professor V. Petrunin says. "The institute, if you trace its history strictly, dates back to the czar's edict of 1915. But we were far more actively involved in resolving the problem of protection against chemical weapons. What is more, many topics and research studies

had and continue to have great scientific and nationaleconomic significance. Representatives of the scientific schools of Academicians Zelinskiy, Knunyanets, Fokin, and Kabachnik all worked at the institute..."

Much has been said lately both in our country and abroad about chemical weapons. More about the past, admittedly, but with a clear desire to switch the emphasis to the present. And the most important point is that there is a clear wish to shift all the blame onto Russian chemical science, Russian scientists, and, of course, the military too. It turns out that the "deceived" West, faced with the threat of chemical attack by Russia, was forced to hastily replenish its arsenals. This interpretation of events looks convincing when it is bolstered by references to the top-secret program codenamed "Foliant," a binary neuroparalytic toxin called "Novichok" (versions of it bearing the numbers 5, 8, 9, and so on are mentioned), products "33" and "35," a sample code-named "VX," and others.

Let's leave aside the newly fashionable allusions to declassified secrets. Let's take two fairly recent dates. On 15 January 1986 USSR head M. Gorbachev put forward a program to create a nuclear-free world and to eliminate chemical weapons. At the end of that same year the U.S. Congress, after a whole series of votes, approved appropriations to develop new chemical weapons, and President R. Reagan declared: "The production of chemical weapons is determined by U.S. national security interests and the interests of other NATO countries." Some \$3 billion were earmarked for the production of 1 million binary artillery shells each capable, with its contents, of killing hundreds of people in between three and five minutes. In short, reason did not prevail.

Moving to the left and the right of the timescale, I can recall the admission by American scientist D. Ellsberg that chemical weapons were used in Vietnam, and the statement by chemical engineer Gordon Berk [surname as transliterated] (a consultant on questions regarding the Convention on Banning Chemical Weapons) that "work for defensive purposes will continue always." And his explanation: "We have the right to do this."

But you know, a right should be the same for ail.

"Banning chemical weapons is a wise move and there is no alternative to it." I heard this from many staffers at the institute. What worries them is something else: By no means all countries have signed the international agreement, and some are even advocating the stockpiling of chemical weapons, calling them the "poor man's atom bomb."

In a conversation with the director, his deputies Ye. Fokin and Yu. Baranov, department chief B. Kuznetsov, and staffers at the S. Bortnik laboratory, we discussed the 40,000 tonnes of "death" which accumulated by the country over many long years. It is not so easy to destroy it while observing all safety norms. This is a very costly operation. According to American estimates (they have roughly the same amount of these "goods"), it will require between \$5 and \$8 billion. Where can that kind of money come from?

A number of interesting projects exist. For instance, it is proposed to "dump" all these military chemicals in space. There is a purely terrestrial version too—throw it into the crater of a volcano. There is also talk of an underground explosion at one of the test sites—Novaya Zemlya, for instance. All these are illusions. Forty thousand tonnes of chemicals, plus the metal—this makes roughly 400,000 tonnes. How many rockets would be needed for this operation, and how much would it cost? Special transport facilities and roads would be required to take the chemical agents to the volcanoes or the test sites. But all oblasts and regions are "closed" to the passage of dangerous chemicals. Whichever way you look at it, everything comes full circle—back to the institute's technologies and speciality.

"Disarmament is impossible without us," Viktor Alekseyevich Petrunin says. Not boastfully, but sadly. "Not everyone can do this kind of work: It requires not only the highest level of professionalism, but also the relevant psychological training. All the allusions to Western technologies are dilettantism at the very least. Our technologies are in a different league in terms of sophistication and safety...."

Now a word about conversion. There is no need to start from scratch here. This process has been going on for a long time. Indeed, the institute has never dealt only in military problems. It combined both aspects. And when it comes to protecting the population from weapons of mass destruction, I would call this kind of project humane, not military.

"Not a single gram of toxins was produced at our experimental plant. Anything remotely dangerous was taken out of Moscow back in 1960," Professor Petrunin says. "What you find in the laboratories does not contravene any legal norms. The convention stipulates that even university laboratories can make up to 100 grams of war gases a year. The United States has not abandoned research and development, nor has France. You cannot halt science. Whether or not these studies become new weapons is a separate question..."

There are many questions. And not all of them have exhaustive answers today. Take the following absurdity: The workshops of the plants which previously produced toxins have to be destroyed. The Americans are not concerned about this. Climatic conditions there are such that plants were light prefabricated buildings. But what are we supposed to do with our "cast concrete"? Destroy it? When there is such a shortage of money, not to mention production, warehouse, and other facilities?

What else is the institute famous for? It was here that phenol and acetone—the basis of caprone—were produced for the first time and they developed processes for producing hydrocyanic acid, methyl acrylate and organic glass, ethylene oxide and its derivatives, which are the basis of the chemical industry, organophosphorus toxins, organofluoric compounds....

I will not mention the other pioneering developments. There are many. Even if they sound a little dull, they are badly needed by our national economy!

The State Scientific Research Institute of Organic Chemistry and Technology is also a readymade pharmacology complex. It produces a number of medical preparations and carries out research into new ones. There is a Russian Federation Health Ministry list of vital medicines. It contains approximately 300 items. The technology for 14 of them was developed at the institute. Let me point out: 14 so far. But you know, we could already be talking about income running into billions if production is expanded rather than wound down.

I happened to read a document which goes by the index number A6-9-3176 in all registration books. Its precise title is: "On the Results of a Check on the Nature Conservation Activity of the State Scientific Research Institute of Organic Chemistry and Technology"—let us note that this was not the first such check. It is addressed to the presidential apparatus. It is signed by the chairman of the Moscow Committee for the Environment. Its essence is as follows: Analysis of samples of soil, air, and water within the institute's territory permits the conclusion that the ecological situation is normal.

#### Moscow TV Shows Chemical Weapons Destruction Plant

LD2206095493 Moscow Russian Television Network in Russian 1600 GMT 20 Jun 93

[Video report by correspondent S. Zhdanova from Samara, identified by caption; from the "Vesti" newscast]

[Text] [Zhdanova, over video of model of chemical weapons destruction plant] Facility 12-12 in the year 1989 cost the treasury 55 million rubles. It is a unique works for the destruction of chemical weapons. Its high degree of safefy and the ecological soundness of its technology have been confirmed by U.S. and German experts and three independent expert studies.

Before it could start work it was closed under the influence of the public of Chapayevsk, near where it was built. But it did not start work as a study and training center either. For four years the officers have been carefully keeping the locks and seals.

And all this time the public has not been dozing—quite literally. At night deputies can come and find out if any work is being done in secret. And tired military men will patiently explain that the facilities were working .... [Unidentified uniformed man, interrupting] ... only during the running-in operations. [Video shows model of plant, extensive views of interior and exterior of plant including sealed equipment, correspondent talking with uniformed man]

#### **GERMANY**

#### Nuclear Power Policy Agreement Delay Viewed

93EN0607C Duesseldorf HANDELSBLATT in German 14 Jun 93 p 7

[Article by Heinz Juergen Schuermann: "No Need for a Decision on New Reactors in This Country Until Ten Years From Now—A Discussion With Chemical Union Chief Rappe"—First paragraph is HANDELSBLATT introduction]

[Text] Hannover—The "Basic Energy Policy Principles" worked out in the spring of 1992 by the industrial trade unions IG Chemie-Papier-Keramik [chemical-paper-ceramics union] and IG Bergbau [mining union] had a very decisive influence on this year's all-parties round of talks on a new energy consensus. Hermann Rappe, chairman of the IG-Chemie and at the same time a Bundestag representative for the SPD [Social Democratic Party of Germany], made it clear during a conversation with HAN-DELSBLATT that the prospects for a successful search for an energy policy compromise already in the course of this year are somewhat remote. The discussion rounds begun in Bonn could help, however, in paving the way for a compromise overlapping parties soon after the Bundestag election at the end of 1994.

So that a secure, reliable, ecologically compatible, and economical energy supply can also be guaranteed in this country in the future, an energy mix consistent with the requirements of the FRG must be established, one that incorporates domestic energy sources—this is how Rappe described the basic position of the "basic energy policy principles" of the two trade unions. Future-oriented and adaptable energy supply structures must be sought. Aside from giving precedence to domestic hard coal and lignite and to maintaining adequate domestic refinery capacities, it is also necessary to assess, without ideological blinders, the contribution to be made by nuclear energy.

But Rappe also cites an important limitation characterizing the long-term utilization of nuclear power plants: "The controversial employment of nuclear energy must be abandoned as quickly as possible once the point is reached where efforts fail at replacing the reactor types of current design, i.e., the light water reactors that are mainly in use today, with nuclear power plants whose remaining technical risks are confined to the interior of the power plant." Additionally, in a future employment of nuclear energy, the (20- to 30-year above-ground) interim storage and final storage must meet adequate security criteria.

At the same time, Rappe did not conceal the fact that reservations among the populace cannot be dispelled overnight. In the interest of Germany as an industrial operating base, it can only be hoped that the consensus discussions will be "successfully concluded within a comprehensible time frame."

#### A Consensus Discussion Is Already Long Overdue

According to Rappe, regenerative energy supply technologies need to be promoted substantially more than they

have been in the past. The energy consensus discussion now under way has been long overdue, Rappe emphasized. The reservations against the use of nuclear energy go back considerably further than the accidents at Chernobyl (April 1986) and Harrisburg (March 1979). The sociological impact and importance of the movement against nuclear energy can be gauged by the fact that no new reactor has been commissioned by a German energy provider for more than 10 years, even though many representatives of the energy industry have again and again given the impression publicly that a secure supply of energy in the FRG is not possible over the long haul without nuclear energy.

At the same time, however, Rappe warned the politicians against wanting to redefine the energy policy from one election to the next, especially in view of the changing majorities in the government. To have a stable energy policy, it is necessary, however, for acceptable solutions to be offered. This includes "a relaxed and sober relationship to nuclear energy, but also to the other fossil fuel sources of energy"—thus Rappe's demand. His conclusion: "I consider it thoughtless and wrong to write nuclear energy off for all eternity and to decide on an irreversible course to abandon it. Nobody can state with absolute certainty today that at some point in the future—perhaps not even too far away—we will have to fall back on nuclear energy."

## Need for Compromise in the Regulation of Operating Life

The chief of the IG-Chemie trade union pointed out that, at the start of the initiative for an energy dialogue last fall, there had been the very important perception that the operating life of the nuclear reactors already connected to the power network, the so-called normal service life, needed to be defined.

In this way, a stable, calculable magnitude is to be introduced which would permit the industry to estimate when the changeover phase which his trade union is basically demanding, but which is not limited timewise, must be completed. In this harmonization process, precautions must also be taken, however, to leave open permanently the option for the future employment of nuclear energy. This means, in turn, that nuclear energy, as well, must continue to be addressed by research and technology policies in Germany. In addition, it would make economic sense in any case to process the available plutonium into mixed oxide combustion elements and then also to make use of these in nuclear reactors. Rappe's assessment: "Besides—in my opinion—the plant in Hanau is one of the safest in the world."

With respect to net service life, Rappe stated: "This service life of operational nuclear power plants must be so calculated that Germany's energy supply can be ensured up to the year 2015 without the construction of additional commercial nuclear power plants." Only after the year 2005 should a "definitive" decision be made on the commercial reentry into nuclear energy.

The prerequisite for this, "naturally," is that within the next 10 to 12 years a reactor type can be conceived within

the framework of state-financed research projects that will "meet the safety requirements of our time." Available for this purpose is a definition which is considered acceptable by both the government and by important elements of the SPD opposition, vis a vis to confine the effects of accidents to the interior of the reactor, so that catastrophic protection measures become superfluous even in the immediate vicinity of the reactor. Additionally, it must be firmly established that the newly developed reactor type, following thorough testing by qualified bodies set up for this purpose (e.g., the Technical Control Board), initially on a demonstration scale, can also be built and tested in Germany.

With respect to his compromise proposal, Rappe has the following remarks: "The time frame being assumed by me is definitely realistic, for the reason that it is based on a commercial service life of at most 30 to 35 years for the newer reactors currently in operation." Longer service lives can hardly be implemented in the groups taking part in the consensus discussions. Rappe's offer to the electric power industry and the reactor builders: "A moratorium until the year 2005, during which only the construction of a demonstration plant is decided on, to serve as a hairline fracture prevention reactor, so to speak, therefore makes more sense than a hasty decision for or against nuclear energy before this date."

Up to the year 2005, an agreed-upon moratorium should remain in effect; only then, after the new reactor has been tested, a two-thirds majority in the Bundestag would have to decide anew on the reentry into the commercial utilization of nuclear energy. Based on current capacities and the expected increases in the consumption of electric power, the chief of the IG-Chemie trade union is going on the assumption that there will be no supply bottlenecks up to the year 2015 even without new reactors. The time period between 2005 and 2015 will suffice to make construction decisions, approve construction plans, and also implement them.

Rappe also suggests that "the decision-free" time be utilized to look for and further develop alternatives to the Gorleben final storage facility. Rappe's "carrot" for the industry: An option such as this on the future utilization of nuclear energy is without a doubt accompanied by a certain amount of risk. This cannot take place entirely at the expense of the industry. Here the state is also called upon to help, not to propagate the research and development of new reactor types, but instead to vigorously support them. The notion that services rendered by the state be repaid when the reactor type thus supported is used commercially makes sense; however, this principle would then have to be applied to other industrial sectors as well, Rappe concluded. His view of the future: "It is hard for me personally to imagine a future without nuclear energy. But no one knows right now what the energy supply situation will really look like in the year 2015." IG-Chemie chief is hoping, however, that by then advanced reactor types will have been developed to be able to satisfy the universally increasing need for energy, and to do this in a way that is ecologically compatible and economical.

# END OF FICHE DATE FILMED 12 JULY 1993